

The Generating Principle of “Symbolic Language” in the Book of Changes

 **Yixiang Wang**

School of Education and Management, Yunnan Normal University, China

Email: 18987764319@189.cn

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Abstract

Zhou-Yi (The Book of Changes) is an ancient Chinese learning. This book is composed of the so-called Eight Diagrams symbol system. This symbol system consists of (0) and (1), modern binary arithmetic and its homology. It is the “language system” used by ancient Chinese ancestors to recognize and create everything. This paper expounds the generating principle and rules of this symbol system, and analyzes the thoughts of the Book of Changes. At the same time, we appeal to the use of creative education in schools.

Keywords: Zhou-Yi”; Symbolic in language; Grammatical rule; Binary system; Logic; Create; Education.

1. Introduction

11111100000 100010010111... This pile of numbers is a language symbol of modern computer system. It is called Bagua in China. It is the written language used by ancient Chinese people to recognize everything in the world.

The Book of Changes is written in the unique symbolic language of ancient China, and the other books compiled by this book include the Book of Changes to the Collection (Shang Dynasty), the Book of Changes to Lianshan (Xia Dynasty), the Book of Changes to Jiao's Family (Han Dynasty), and the Book of Changes to the Emperor (Song Dynasty). In particular, the symbol multiplication principle proposed by Shao Yong in the Song Dynasty. This is highly consistent with the binary system invented by Leibniz 200 years ago. This unique symbolic language consists of yin and yang characters to form a written sentence.

There is a paragraph in the Book of Changes. The Biography of the Department wrote: “one yin and one yang are the Tao. The successor is the good, and the person who succeeds is the nature. The benevolent person sees the benevolence, and the knowledgeable person sees the knowledge. The common people do not know the daily use, so the way of a gentleman is rare!” It means that the principle of the Eight Diagrams Semiotics is composed of two characters: yin and yang, which is called “one yin and one yang are the Tao”. As a language for people to learn and use, it is called “the successor is good”. It recognizes all things by this way, which is called “the nature of the person who has achieved it”. As a language, its grammatical rules remain unchanged, but its use is diverse. The author can write different descriptions and contents according to his own will, which is called “benevolence is what the benevolent see, and knowledge is what the knowledgeable see”. Ancient scholars used the Eight Diagrams symbols to write records of daily life, but the common people did not receive the education of semiotics and did not understand it, which is called “common people do not know about daily use”. Therefore, this set of semiotics is only known by scholars, which is called “the way of a gentleman”. However, ordinary people have never read this book, and seldom recognize it, and even more cannot write articles by this symbol, which is called “fresh”. It can be inferred that this unique set of symbolic language is the earliest “language system” used by ancient Chinese ancestors to recognize everything.

Some logicians believe that the Book of Changes is a “book about reasoning”, and a tool book to help people think rationally, because the Gua-Yao (卦爻) line symbols in the Book of Changes and corresponding Gua-Yao dictions are a relatively complete and abstract symbolic reasoning system. Further, some experts compared the Book of Changes with Aristotle's Instrument Theory. For example, the author of the New Theory of the Book of Changes proposed seven rules of reasoning, namely, the law of natural progression, the law of position, the law of

correspondence, the law of three paragraphs, the law of two paragraphs, the law of the whole and the law of changing lines. If it is really a reasoning book, then this reasoning should be based on the grammatical rules of symbol combination.

The composition of language and words must have two basic elements: "word" and "grammar". The semiotics of the Book of Changes is no exception. It consists of three characters to form a single hexagram, and each single hexagram has many meanings. Traditionally, it is called a kind of image. In The Book of Changes, Shuoguzhuan is a set of semiotics dictionary that collects the meanings of these single hexagrams. From this point of view, the symbols in the Book of Changes have the first element of the written language, and the next step is to find the second element, namely, the grammatical rules, which is the topic that this paper tries to solve.

Through the mutual translation of the corresponding relations between the hexagrams, lines and symbols of the Book of Changes, the deduction and verification is to put forward assumptions, and to repeatedly deduce, test and verify the laws of the symbols of the Book of Changes that constitute the written language by examples, so as to uncover the mystery that has been sleeping for thousands of years, restore the authenticity of the symbols of the Book of Changes and discuss how to apply them. For convenience, the arrangement of relevant symbols in the following discussion corresponds to horizontal arrangement, such as Gen-Gua (艮) is 001, Xun-Gua (巽) is 011, etc.

2. The Composition of the Symbolic Characters in the Book of Changes

The composition of the eight trigrams is based on two symbols, called the feminine and masculine, as shown in the following figure:

———— It is called "Yang" Yao, which is the same as the binary number "1".
 — — — It is called "Yin" Yao, which is the same as the binary number "0".

"Yao" means change. In ancient Chinese culture, the habitual cognition of nature divided everything into two attributes, namely, yin and yang. Taoist Laozi called Yin "nothing" and Yang "you". In terms of state, Yang is dynamic and open; Yin is static and closed. Everything appears through different combinations and changes of yin and yang, so the characteristics of the combination and change of yin and yang are represented by the word "Yao".

If we write yin with "0" and yang with "1", according to the statement that "the metaphysical is the Tao, and the shape and the bottom are called tools". "0" is nothing and metaphysics, so it is "Tao"; "1" refers to the form of action, so it is "implement". In the Tao De Ching, Lao Tzu said, "Nothing is born of being, and being is born of nothing." What does it mean? It means that yin and yang can change each other. For example, according to the semiotic multiplication method, the Dao of "0" is rounded to "1", and the word "1" is born from the word "0". So Laozi called it "Tao begets one". "1" is multiplied by the natural number (i.e. binary carry) to "10", and its natural number is "2", which is called "one products two", but its low position is still "0". The natural number of 10 multiplied by 11 is three, which is called "two generate three", but the low number becomes "1" again. 11. Continue to multiply and carry to 100, and its low bit changes back to "0".

It is known that the binary, as a computer language, mainly deals with open and closed problems. Because "0" means "closed", and "1" means open. This is what the Book of Changes · Shizhuan said: "closing the door means the Kun, opening the door means the Qian, closing the door means the change, and opening the door means the connection". "Bi" means open, and "1" means open. The continuous alternation of closing 0 and opening 1 is called "communication", and if the communication does not stop, it is called "endless". Constant change leads to communication, which leads to life of all things, and no-communication leads to death of all things. Therefore, "continuous communication is the connection", which is the power source of everything created by the change and exchange of yin and yang. This is the basic principle of creating everything with the alternating and cyclic changes of the two characters of Yin and Yang, which is the meaning of "Yao".

The inventor of semiotics stipulated that different yin and yang trigrams should only form a single trigram (similar to the current word) in a group of three, and each single trigram should give different images, that is, different word meanings. There are only eight in total, as shown below:

☰ ☷ ☱ ☲ ☳ ☴ ☵ ☶ (Vertical arrangement)
 111 110 101 100 011 010 001 000 (Horizontal arrangement)

Each single hexagram is similar to a word, representing one kind of things or word meaning. The eight hexagrams represent eight kinds of things (covering all things), such as: Kun (坤) 000 kinds of things are cattle, mother, earth, etc; Gen (艮) 001 elephants are dogs, mountains, and horses, etc; Kan (坎) 010 elephants are pigs, water, middle males, etc; Xun (巽) 011 elephants are chicken, tree, middle female, etc; The earthquake (震) 100 kinds of elephant are dragon, insect, foot, etc; Lid (离) 101 elephants are pheasant, fire, sun, etc; Mix (兑) 110 kinds of elephant into sheep, mouth and humus, etc; The Qian (乾) 111 kinds of elephants are heaven, old people, tall buildings, etc.

At the same time, when each single divination forms a character, its meaning or similar thing is different from modern characters, that is the so-called concept of time and place. "Time" is time, and "position" is space. Take the following combination of divinatory symbols of Qian-Gua as an example:

———— The upper line represents the end of time and the end of space.
 ————— The middle line represents the whole of things.
 ————— The initial line represents the starting point of time and the initial position of space.

There is a sentence in the Confucian classic "Daxue": "Any things have their origins and ends, which are known by our, it will be a shortcut to know the way." This is the usage of time and place in semiotics. The initial line is the

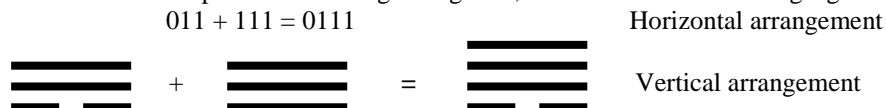
base of something's space and their beginning of time, and the upper line is the end of time. The middle line represents the whole thing and is called "Tao". That is to say, when using the trigrams to express a thing, you must observe it from its antecedents and consequences, and then you can basically know the thing, which is called "then it is close". If the Qian type is like the sky, the initial line is the lower part of the sky, which is called the world; the middle line represents the whole; the upper part of the line is called heaven. Therefore, the concept of "Qian-Gua as sky" is based on a complete expression composed of the heaven and the world. This is "knowing the place first and end, then the way is short." This "Tao" refers to the abstract thing "Qian-Gua as sky".

3. The Symbolic Structure and Grammatical Rules of the Book of Changes

The expression of a thing in any written language is based on the combination of words and words into sentences, sentences and sentences into chapters. Based on this principle, the Eight Diagrams Semiotics uses the connection of the Single Diagrams and the Single Diagrams to express the reason. This connection has the following principles.

3.1. The Structure and Grammatical Rules of the Four Trigrams

Four trigrams structure: It is composed of two single diagrams, as shown in the following figure:



Syntax rules of the four trigrams: 011 and 111 are two independent single trigrams (words) combined into sentences, which are written from left to right (vertically, from bottom to top), in which the last line of 011 coincides with the middle line of 111, 111 is the subject, and 011 is the predicate, which is equivalent to 011 modifying 111. That is, the current situation of 111 comes from the auxiliary explanation of 011.

There are 16 types of four trigrams, which are arranged horizontally from left to right, 0000, 0001, 0010, 0011, 0100, 0101, 0110, 0111, 1000, 1001, 1010, 1011, 1100, 1101, 1110, 1111. The order is recursively deduced according to Shao Yong's multiplication principle of the Song Dynasty, namely binary addition principle.

The four trigrams are illustrated as follows:

3.1.1. Take 1011 Combination as an Example

101 takes image as fire and 011 takes image as gas. 101 the top line is in the middle of 011, and two words like fire and gas form a sentence called "fire and gas". If 101 is taken as withered, 011 is taken as tree. 101 top line and 011 middle line are combined to form 1011 sentence, which is called "withered tree". In the same combination, the principle remains the same. According to 101 and 011, the meanings of different images can be described in different contents, which depend on the author's idea. The same Chinese characters can be used to write articles with different contents. This is "benevolent people see what is benevolent, and knowledgeable people see what is knowledge." [Note] "See" now also shows.

3.1.2. Take 1000 Combinations as an Example

Taoist Laozi describes this sentence combination as "a journey of a thousand miles begins with one step". Among them, 100 take the image as the foot line, and 000 take the image as the earth (the open metaphor of the earth is "thousands of miles"). 100 modify 000, which literally means that foot walking starts from the ground under foot. In addition, from the 0001 combination, Laozi described it as "the nine-foot platform begins with earth". Among them, 000 image taking is the combination of earth and 001 image taking is the high platform, and the end of 000 line is in the middle of 001, indicating that this high platform is built by earth, which is called "the nine-foot platform starts from earth". "Nine" is the highest position of the largest number of Yu Tai (?). "Ruler" is a measure.

3.1.3. Take the Combination of 0010 in the Book of Changes

001 Dingyao is in the middle of 010, indicating that the bird is nurtured and raised in the nest. Confucius described it as "living in virtue". It can be seen from this that Laozi, like Confucius, originated from the application of semiotics in his writing. [Note] Residence: residence. Xian: Talent. De: Achievements.

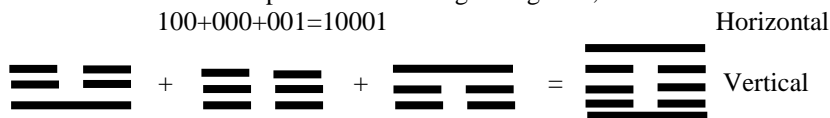
3.1.4. Take the Combination of 0000 in the Lower Part of the Book of Changes

For example, take the elephant as soil, and the combination of soil and soil is still soil. What we can get is only the thickness of the soil, that is, it only produces quantitative changes without qualitative changes. Therefore, Confucius called "kindness" in the elephant. According to the principle of either this or that, this suggests that the combination of two homogenous single hexagrams will not produce qualitative changes, so the qualitative changes can only occur when the combination of different homogenous single hexagrams, which is ancient chemical physics. For example, 111 and 111 combinations, 110 and 110 combinations, 011 and 011 combinations are all homogeneous combinations, and there will be no qualitative change, even no form of combination, because the result of combination must be cross combination, for example, 001 and 010 combination is 0010, while 110 and 110 or 011 and 011 cannot cross combination at all, which is the saying that close relatives cannot reproduce. Another special case is that the two completely opposite things can not be crossed and combined. For example, 111 and 000 are absolutely opposite. Even if 111 and 000 are combined, there must be an intermediate. This intermediate is called "anger and harmony" by Lao Tzu of Chinese Taoism. This proves that everything in nature is yin with yang, and

yang with yin. It is just how many components each has. Only such material properties can have chemical reactions and changes. The originality of semiotics in natural science is beyond the scope of this article. There are still many mysterious and profound things in semiotics, which are left for later generations to explore.

3.2. The Structure and Grammatical Rules of Five Trigrams

Five trigrams structure: It is composed of three single diagrams, as shown in the following figure:



Five trigrams grammar rules: Grammar rules: 100, 000 and 001 are composed of three independent single trigrams (words), which are written from left to right (vertically from bottom to top). It is mainly used to describe the semantics of the last 100 lines. For example, the last 100 lines, the middle 000 lines and the beginning 001 lines coincide. 100 final lines contribute to 000 middle lines, and 000 middle lines contribute to 001 initial lines. In other words, the five trigrams are an extension based on the combination of two four trigrams, that is, the 100 final trigrams and the 000 middle trigrams are combined into one four trigrams, and then the 000 middle trigrams are combined with the 001 initial trigrams to form another four trigrams. The sentence composition semantics follow the law of causality. According to the logical reasoning order, 100 is the antecedent, 000 is the status quo, and 001 is the consequence. The status quo comes from the antecedents, and then the consequences. In other words, the appearance of the thing represented by 001 depends on the things represented by 100 and 000 respectively. This is the logic of the five trigrams to construct sentences. As for how to take images to achieve the application that conforms to this logic, it is up to people to take images according to their own writing intentions (this will be further elaborated in the deduction).

There are 32 types of five trigrams, which are arranged horizontally from left to right: 00000, 00001, 00010, 00011, 00100, 00101, 00110, 00111, 01000, 01001, 01010, 01011, 01100, 01101, 01110, 01111, 10000, 10001, 10010, 10011, 10100, 10101, 10110, 10111, 11000, 1101, 11010, 11011, 11100, 11101, 11110, 11111. The order is recursively deduced according to Shao Yong's multiplication method of the Song Dynasty, namely the binary addition principle.

The five trigrams are illustrated as follows: Five-character combination sentences are mainly used to describe the semantics of a certain line, and the basis for interpreting the line in the Book of Changes is based on this rule.

3.2.1. According to the Sixth Line in Kun-Gua of the Book of Changes, the Hexagram of the Universe, "The Frost is on, and the Ice is Firm."

From the composition of 11000 sentences in the sixth day of the day, 110 image taking is a combination of liquid and 100 image taking is a combination of rigidity. The apparent rigidity is formed by solidification of 110 liquid and then attached to the ground of 000 image taking. The reason why 110 liquid will become solid is that 110 still has the image or attribute of 111 cold. That is to say, the reason why 110 can solidify is to look forward according to the law of bottom-up recursion. This reason is that there is a Qian Gua 111 connected with it before 110. This is based on the continuity of the Book of Changes. The continuity is reflected in the connection between the front and back symbols. Then the Kun Gua is the Qian Gua before it. The semantics of the Kun Gua and the Qian Gua must be interrelated. According to the cold meaning or similar image of Gan 111, liquid energy solidification is found in this way. So that the cold causes the water to slowly solidify. The process of slowly solidifying is to have frost first, and then attach it to the ground to form ice, which is the deduction of the sentence "wear frost, firm ice until.". This process Confucius called "the beginning of Yin is also frozen, and the way is tamed to the end of ice." [Note] Shoes: experience. Frost: white fine particles condensed by water vapor close to the ground when it is cold on the ground or objects. Jian: Gangya - Shuowen. Ice: The solid formed by condensation of water.

3.2.2. According to the Second line of the Sixth Day of the Book of Changes, the Divination of the Universe, "it is Straightforward, and it is not Harmful to Learn."

From the perspective of the composition of the sixty-two line statements 10000, it can be seen that the image of 100 is straight and the image of the first line of 000 is the combination of the area of "square". That is to say, the line of 000 accepts the straight line of 100. Confucius called it "square", so it is "square", and then connected with the line of 000 is the first line of the earth. The line of 000 represents a certain area of the earth, so it is "big". The so-called "big" means that the middle of 1000 is like a natural nest, so it is "no", the space with contents is "practice", and the stage for the entry of 100 is "nothing". So this nest helps 100 people survive, so it is called "benefit". Therefore, "there is no disadvantage without learning". [Note] No: its original meaning refers to the original nest on the tree branch that is directly used without connective structure. Xi: It refers to space. None: used at the beginning of a sentence without meaning; Dance.

3.2.3. According to the Nine Three Lines in the Book of Changes, the Qian-Gua, "A Gentleman is Dry all Day Long, and He is not Responsible for his Vigilance."

From the perspective of the composition of the nine trigrams 11111, the nine trigrams are in the middle of the five trigrams 11111 combination, and their semantics come from the different time and position of the three single trigrams with the same property (all of which are the Qian trigrams). The last line of 111 is the end, and the first line of 111 is the beginning. The process of transmitting the alternation between the old and the new is called "day", that

is, the end of the former dry means the beginning of the latter dry, so it is called "all day". Confucius called it "repeated Tao", that is, the old goes to the new and reappears. The connection between the last line and the first line indicates that this thing will not be interrupted and has continuity, so it is "dry". "Xi" refers to the end of the end of the thing. "Xitieruo (夕惕若)" refers to conforming to the natural aging of a thing. "Li" refers to the opening of the new course of this thing at the beginning of the year. "No blame" means that the old have gone but usher in the succession of a new generation, that is, they will continue to live.

3.2.4. According to the Nine Five Lines in the Book of Changes, Tun-Gua, "Tun its Cream, Small Chastity and Good Fortune, Big Chastity and Bad Fortune."

From the perspective of the composition of the nine-five trigrams 00100, the nine-five trigrams are in the middle of the five trigrams 00100, and its semantics come from the common composition of the three different attribute single trigrams 001, 010, and 100. Among them, 001 takes the image as the seed (the essence of things), so it is "cream"; 010 take the image as "Tu concave". When 001 and 010 intersect, the surface species enter 010 and accumulate, which is called "Tunqi Paste". Then it is connected with 100 for reproduction, and the function of surface accumulation is to cultivate and reproduce the species. The species is "small", and the population is "zhenji". 010 is the earth concave with the capacity to accommodate 001, so it is called "Da Zhen". Inclusion has a protective effect, so it is described as "evil". [Note] "Big" has capacity.

If we look at the combination of 11011, 110 takes the elephant as the egg, 101 takes the elephant for hatching, and 011 takes the elephant chicken. After hatching, chicks are born. The 00100 combination is that the species will grow out when they enter the soil pit. This is the clue that the combination of the five trigrams gives two logical inferences of viviparous and oviparous species.

From this point of view, the results of 100 breeding and 011 chicken were obtained based on the combination of 001 and 010 and 110 and 101, respectively. Therefore, the great contribution of the five trigrams, that is, the establishment or argument of a thing, is based on two conditions, one is the reason; Second, the current situation. According to the order of $A \rightarrow B \rightarrow C$, the result of C is based on the transmission of A through B, for example, the establishment of 011 must come from 110 through 101 and finally passed to 011.

3.2.5. According to the Initial Line of the Book of Changes, the Tai-Gua, "grass pulled up, and bringing with it other stalks with whose roots it is connected. Advance will be fortunate."

From the composition of the first nine line sentences 11111, we can see that the last line of 111 and the middle line of 111 intersect and overlap homogeneously, but the number increases, but the nature remains unchanged. That is to say, no matter what image 111 takes, the combination of 111 and 111 is only a number of towering and gathering. So it is also true to "pull out the grass and gather it". This is the evidence of the proposition of Yao in the beginning of 111, so it is called "auspicious". "Sign" as evidence. [Note] "Pulled up" and stand out. "Sign" certificate.

3.2.6. According to "The Analects of Confucius, Learning and Learning", "Clever Words Make Color, Fresh and Benevolent."

From the semiotic sentence combination 10111 in the Book of Changes, we can infer that benevolence is defined in this way. The Qiangua 111 takes the elephant fruit, the middle line is the core, that is, the flesh heart is "benevolence", the Xun Gua 011 takes the elephant as a good thing, that is, "ingenuity", and the Li Gua 101 takes the elephant armor, that is, the shell. According to the principle of semiotics, benevolence comes from the contribution of ingenuity, and ingenuity comes from the contribution of the shell. The main idea of the combined sentence is that "benevolence" is so delicate and in the package of the shell. This is because Confucius expressed "benevolence" according to the Yin-yang view of the Yi School (the Yin-yang view is a comparative method of internal and external, upper and lower, front and back, etc.). Internally, the exquisite perfection of "benevolence" has infinite creativity. Because it is the source of life, it is called "ingenious words". In terms of appearance, it kneels and listens to the package of the shell, which is called "Lingse". Wait for the call of the season at any time to produce hair. If there is little appearance at the right time, it is called "Xianyiren". It can be proved that semiotics is the source of the thoughts of the philosophers in the pre-Qin period. [Note] "Qiao" means exquisite. "Yan" is an auxiliary word. "Color" refers to appearance. "Stingy" means kneeling and obeying orders and seasons. "Fresh" is rare.

3.2.7. The acquired (subjective) and innate (objective) description rules of symbol combination are demonstrated by the semantic "hidden dragon not to be used" obtained from the combination of 01111 in the ninth sentence of the Book of Changes. Qian Gua:

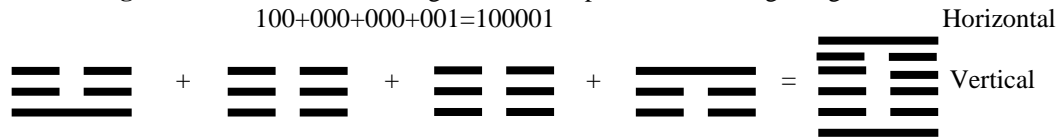
The meaning of "hidden" is because the middle position of the 111th position of the ninth day of the year is Zang. Zang refers to the phenomenon that the combination of the 011th image gas and the 101th image sun is Yangqi, which is stored in the 111th position. According to this phenomenon, Confucius referred to "potential" as "Yang Qi reservoir". This is a subjective description based on the phenomenon. Objective existence is another state obtained according to the development of natural numbers. This state is obtained according to the multiplication method, that is, binary. For example, 011 in 01111 carries the final line to get the new sentence 10011 combination. This combination is objective, and then takes the image according to the combination rule, in which 100 takes the

image as the dragon and 001 takes the image as the seed combination, and the dragon seed and 011 takes the image as the flag and connects for life, Namely, the characteristics of the dragon species (flag) are displayed in the function of summoning life, which is called "Do not use". This is an objective natural law. From this, we can infer that semiotics describes things from both objective and subjective aspects. Objective is the internal attribute and subjective is the external performance. This is one of the main characteristics of semiotics that uses yin and yang to describe things.

[Note] Don't: Xu Shen's "Shuowen Jiezi" originally meant to be the flag of the state to summon the people; Xun 011 is taken as the sail or flag of the ship. Use: make people or things function.

3.3. The structure and Grammatical Rules of the Six Trigrams

Six trigrams structure: The six trigrams are composed of four single trigrams, as shown below:



Grammar rules of the six trigrams: The writing structure of the six trigrams is divided into two parts: the upper part and the lower part. That is to say, the sentence composition of the six trigrams is based on two four trigrams, of which 1000 is the lower part and 0001 is the upper part. The sixty-four hexagrams in the Book of Changes are equivalent to sixty-four chapters. Each chapter is regarded as a short passage. The lower part is to ask questions, and the upper part is to answer questions. The question raised is called "taking shape on the ground" in the book of the Department of Biography, and the answer to the question is called "taking shape in the sky". Therefore, it is reasonable for scholars of the past dynasties to call the upper part the Heavenly Way and the lower two parts the Earthly Way.

There are sixty-four sentence patterns, which are arranged horizontally from left to right: 000000, 00000 1, 000010, 000011, 000100, 000101, 000110, 000111, 001000... 111111. The order is recursively deduced according to Shao Yong's multiplication method of the Song Dynasty, namely the binary addition principle.

The so-called multiplication method refers to the transformation from the state of one thing to the state of another according to the increase of natural number when binary is used as a sentence to describe things. For example, with the increase of time, the state of 001 will not remain unchanged, but will change to the state of 010, which is irreversible until the state represented by the trigram system ends and continues to the state represented by another high-level system. For example, the end of the decimal places of 110 to 111111 to 1000111 mean the end of the trigrams, and then enter the high level of 1000 to continue to change, and the decimal places of 1111 to 10000... indicating that the evolution and development of all things are inexhaustible.

The six trigrams are illustrated as follows: The writing structure of the six trigrams is divided into two parts: the upper part and the lower part. At the same time, the sixty-four hexagrams in the Book of Changes are equivalent to sixty-four chapters. Each chapter is regarded as a short passage, with the lower part asking questions and the upper part answering questions. The question raised is called "taking shape on the ground" in the book of the Department of Biography, and the answer to the question is called "taking shape in the sky". Therefore, scholars of the past dynasties called the upper part the Heavenly Way and the lower two parts the Earthly Way. That is to say, the composition of the six trigrams is based on two four trigrams.

3.3.1. Taking the 001000 Combination of the Book of Changes. Qian(谦)-Gua as an Example, it is Deduced that the Elephant "Gains more and Gains Less, which is Called the Balance of Things."

Confucius said that the "Book of Changes" records the common sense and common way, but the common people do not know it. For example, modest divination is a common sense recorded in the language of divination symbols. After the harvest, the ground is filled with grains like mountains (001) as "many", and then the grains are poured into a kind of 010 hollow (oligo) container for distribution, and the upper edge of the container is measured as the flush point. This is the fair distribution method commonly used by people (this container was called "Shengdou" by the ancients). The specific deduction is as follows:

001000 is divided into three parts: lower 0010, middle 0100 and upper 1000. The lower part is to ask questions, the middle part is to describe questions, and the upper part is to answer questions. First of all, the image of 0010001 is a pile of convex grains, so it is "many". Pour it into the container of 010, which is concave and empty, and it is called "many benefits and few benefits". Then look at the top line of 0100010 in the middle, which is at the middle of the measurement of 100. The top of 010 is taken as the horizontal position of the measurement of 100. In addition, some 1000100 images are the combination of measuring instrument and 000 images of grain. The table uses the measuring instrument to "weigh", and the 100 top lines are at the intersection of the 000 middle lines. The table uses the top of the container 010 as the level position to measure the grain distribution, so it is called "level implementation". [Note]: decrease. Widow: Empty. It is called a measuring instrument. Application: measurement.

In fact, the structural principle of the Eight Diagrams symbol is very simple. The eight single trigrams are eight words, of which 001 (vertical arrangement) takes its meaning as mountain, and the mountain is the projection above the ground. 010 (vertical arrangement) takes its word meaning as "sink", which is a pit below the ground. When 001 and 010 are combined to make a sentence, as long as they follow a basic rule of Bagua semiotics, the way of this rule is to connect the "1" at the top of 001 with the "1" in the middle of 010 to get a combination 0010, which is a

sentence composed of 001 and 010. The meaning of this sentence is to fill the part higher than the ground into the low pit. That is to say, 001 acts on 010 and then makes both sides reach a balance state. This balance state is that both sides are neither more nor less, so the meaning of "more benefits less" is derived in this way. That is to say, when we want to describe such a reason, we should write it directly in 0010. Of course, such a writing system can't be understood now, but it really existed in ancient times, but it has been lost for too long! If we want to truly and deeply understand the ancient Chinese culture, we must face up to and rediscover this set of symbolic language.

3.3.2. Take the 010001 Combination of the Book of Changes and the Meng-Gua as an Example to Prove that the Elephant "the Gentleman Educates Virtue by Fruit".

The lower part is 0100, the middle part is 1000, and the upper part is 0001. "Gentleman" is a Confucian idiom, which is ignored. In the second part of 0100, the combination of 010 image taking school and 100 image taking behavior is the function of the school. In the middle part of 1000, 100 is the function and 000 is the training combination, which shows that its function is to implement training. In the upper part of 0001, 000 image taking culture and 001 image taking culture are the combination of children and children. Taken together, the function of the school is called "fruition", and the purpose is to cultivate students, which is called "moral education". [Note] Fruit: wrapped. Line: implementation, industry.

3.3.3. Taking the 110101 Combination of "The Book of Changes" as an Example, it is Proved that the Elephant "the Gentleman is different with the Same".

The lower part is 1101, the middle part is 1010, and the upper part is 0101. From the lower part 1101, the 110 Elephant Gold Sabre (extended to arrow) is combined with 101 Elephant Weapon, and the arrow is a weapon. (This is the semantics obtained by modifying the subject 101 with 110 as the predicate. This is a question. From the middle part 1010, the 101 elephant bow and the 010 elephant bow are combined, and the table arrow needs the cooperation of the bow. From the upper part 0101, the 010 elephant bow and the 101 elephant bow are combined, and the table weapon is called the bow and arrow, or the bow and arrow constitute a weapon.

110 is the arrow and 010 is the bow, which belong to the same weapon, so it is called "Yitong". But the two are different in nature, which is called "but different". At the same time, the combination of bow and arrow means that the bow can retract after opening the bow, while the arrow is away from the bow. The two directions are opposite, which is the meaning of "full view". This example tells us that the six trigrams are generally divided into upper and lower parts, which can be explained clearly, and can also be divided into 1101, 1010 and 0101 parts, of which 1010 is called the mutual trigrams. Strictly speaking, the discussion of each divination is basically clear through the upper and lower parts, but sometimes when the description of things is not clear, the mutual divination part can be added to make it clearer.

3.3.4. Taking the 110111 Combination of "The Book of Changes" Kui(履)-Gua as an Example, it is Deduced that the Elephant "Gentleman can be general agreement, yet admits diversity."

From 1101, the combination of 110 image taking the west and 101 image taking the sun is the setting sun (because the final line of 110 is not positive, the state of the sun is west). From 0111, we can see that the combination of 011 image white and 111 image sky is the end of the day. (Because the end of 011 line is the tail, that is, the afterglow of the color, not the whole color, so only a little white is left on the day 111). The combined semantic meaning is: according to the identification of the sunset, it is called "to distinguish the upper", and then it can be determined that the day is going to end, and it is called "to make the people happy". Or 1101 is the upper part and 0111 is the lower part. Through the semantic discrimination of the upper part, it is called "to distinguish the upper part". Then we can establish the semantics of the lower part, which is called "the lower part of the annals of the people".

Divination is the application of virtue. The sun bears the burden of a day's work and gradually sinks, so it is called "kindness". However, it still maintains the delay of giving more light in the daytime, so it is called "non-stop".

Extension: 110 takes the image as the west, 101 takes the image as the sun. The 110 top line is in the middle of 101, and if the top line is not in the middle, it is biased, so the 110 end line is called biased. The intersection of the west and 101 lines indicates that the sun is west, which is the image of sunset, so it is called sunset. 110 is "up" in front of 101 and "down" behind 101. By taking the image of the previous divination 110 to the west, we can distinguish the current situation of the sun in the next divination 101, which is called "to distinguish the upper and lower". It is also analyzed from 0111: 011 takes the image as the life, and the last line is the late life; 111 Take the old elephant. The combination of 011 last line and 111 middle line indicates the late life. That is to say, the trend of the sunset (ambition) has established the aging of human life, so it is called "peace of the people". [Note] Differentiation: difference. An: Definitely, so that... has a suitable position. "People" are also popular, starting from the image of ancient prose - Shuowen; In the ancient text, we take the Tibetan culture from the mother, which means many things up and down. Zhi: The direction of the heart.

3.3.5. Take the 111000 combination of the Book of Changes and the Tai(泰)-Gua as an example to draw the following evidence:

The lower part is 1110, the middle part is 1100, and the upper part is 1000. From the lower part 1110, 111 and 110 are split combinations, (111 modifies 110), indicating the openness of the sky. From the perspective of 1100, the

combination of 110 image taking and 100 image taking is free, and the table opening brings freedom. From the perspective of 1000, the freedom of 100 images and the freedom of 000 are many combinations, and the freedom of table will bring prosperity.

3.3.6. Take the combination sentence 001010 of Jian(?焦延寿)-Gua in Yilin to see how Jiao created "fish and land are lost and birds and flies are suffering" as an example to prove:

From 0010, we can see that the image of the lower trigram is the land road and the image of the lower trigram is the intersection of the fish. It shows that there is a fish on the land road. The fish was originally in the water, but now the fish lying on the land is equivalent to losing its place to live, so it is called "fish land lost". Also from 0101: 010 is a fish and 101 is a dry combination, and the surface fish is now in drying. From 1010: 101 is a combination of dryness and 010 is a combination of fish. At the same time, 101 can take the elephant as a pheasant as a "bird" and 010 can take the elephant as a combination of shackles and withers. The surface bird is trapped by the shackles and withers placed by the hunter. This is a metaphor for the suffering of the fish lying on the land in a dry environment, so it is called "the plight of birds and flies". [Note] Land: land road.

Both the four trigrams, five trigrams, and six trigrams must follow the word order from bottom to top (binary from left to right), which is equivalent to the habit of modern writing, which accumulates words from left to right to describe things.

3.3.7. Using the combination of sentences 11111 in the Book of Changes and the Qiangua as an example, it is inferred that the elephant "constantly strives for self-improvement".

According to the attribute of yang and openness, the 111 three yang are all yang from beginning to end, especially at the end of the line. However, when this end line is combined with the 111 middle line, the attribute of the things represented by the 111 middle line is determined by the yang attribute of the 111 end line. Therefore, the yang of the 111 middle line is strong and comes from the contribution of the yang of the 111 end line, so it is called "self-improvement". The last line of the Lower Mutual Qian 111 is connected to the middle line of the Upper Mutual Qian 111, and the same is true. The Yang Yao of the last position of Shangxiangqian implements the attribute of Yang and hardness to the middle position of Shangqian 111, making the last Qian hexagram also Yang and hardness, that is, the attribute of Yang and hardness is continuous from beginning to end, hence it is called "endless". This is the logical deduction of Qian's "constant self-improvement".

4. Conclusion

To sum up, the three trigrams, four trigrams, five trigrams and six trigrams are the basic rules of symbolic language statements, which are prepared to follow the bottom-up word order. The so-called bottom-up word order is based on the logical reasoning of qualitative description and quantitative calculation. Take the humble divination statement 001000 as an example. First, combine 001 image as a pile of grain (more) and 010 image as a empty container (less) to form a sentence, and then pour the grain into the container. This is the qualitative description of the argument, and then write up, 010 and 100 take the image measurement to form a statement. The table container is used for measurement, which is also qualitative description. The 010 final line is combined with the 100 middle line (the middle line table is just right), and the upper edge of the container is used as the measurement standard; In addition, 100 is the measurement and 000 middle lines are the grain composition statements. The table measurement is used for grain distribution. At the same time, the 100 end lines and 000 middle lines are the equal combination. The table measurement result is to achieve fairness, which is called material balance. This is a quantitative calculation.

In addition to the function of written language, symbols also have a little-known function, which is to provide theoretical reserves for the cognition of the physical world. For example, the eight hexagrams represent eight substances with different properties. By combining them in pairs, we can identify which substances can produce chemical reactions and changes, and which substances can not produce chemical changes. For example, Qian (111) and Qian (111), Kun (000) and Kun (000) are all same-sex substances, and the combination of 000000 can only increase the quantity of this new substance without causing qualitative change. For example, the Kun Gua elephant is called "virtue carries things", in which the meaning of "virtue" is the superposition of the homogeneity of the lower Kun (000) and the lower mutual Kun (000). Gen (001) is solid and Kan (010) is liquid, with different fractions of substances. When they can be combined to 0010, that is, when they are together, it means that many solids can be dissolved in water. Then Gen (001) is the combination of dog and Kan (010) is the pig. According to the bottom-up principle, that is to use the dog to actively mate with the pig instead of using the pig to actively mate with the dog. The result of mating is a new combination statement 0100 of Kan (010) and Zhen (100), which is based on the principle of changing the line, that is, multiplication. Kan (010) is still the same as the pig, and Zhen (100) is breeding, that is, the pig is pregnant with the dog's fetus instead of the dog's fetus, This reflects the hints of modern species hybridization theory.. Another example is that earthquake (100) and kun (000) belong to two different substances. When they are combined into 1000, that is, when they are together, they will cause extreme expansion. This is our earliest explosion theory, and at the same time, it provides theoretical reserves for us to search for such explosive substances. In addition, Xun (011) is the combination of tree and Gan (111) is the fruit, which means that the tree can bear fruit directly, but the fruit cannot bear trees directly. It can be inferred from the multiplication method that the next state of 0111 becomes 1001, and the earthquake 100 is the combination of reproduction and Gen 001, which indicates that the fruit of the tree can be used as the species of the next generation, which is the early

planting theory of mankind. These things are not surprising today, but we can go back and observe the ancient people's thoughts. Their wisdom is so magical, which is the creativity of semiotics. As for the evidence of "semiotics" enlightening human invention and creation, there are many examples in the Book of Changes.

Ex. 1: It is a Fishnet Made of Knotted Rope, and it is used to Catch Fish and Cover the Leaves.

The rope is woven into a net for hunting animals and fishing. It was invented through the enlightenment of the digram 101101 sentence. 101 take the image as a net, 011 take the image as a rope, 101 take the image as a rope, and 101 take the edge of the mesh at the line position of 011. The edge of the mesh preset in the table is attached to the rope and formed, so it is "as a rope but as a fishnet". 110 can take the image as a small hole, 101 can take the image as a net, and the final line of 110 is in the middle line of 101 as a net. The net woven by the table should have small holes in it. This kind of net can have the function of hunting and fishing, which is called "fishing by tenancy".

Ex.2: Serve the Ox and Ride the Horse, Lead the Heavy to the Far, Benefit the World, and Cover the following

It means to tame the wild horse (cattle, refers to the wild horse), ride for people and benefit the world. It was invented through the enlightenment of Sui Gua 100110 sentences. Among them, the lower part of the 100 elephant taking wild horse and 001 elephant taking wild horse are the controlled intersection, which shows how to control the wild horse. This is a question. The upper part of 011 takes the elephant as the rope and 110 takes the elephant as the mouth of the horse. It shows that the training of the wild horse is to put the reins on the mouth of the horse, which is to answer the question.

Ex. 3: Chop Wood for the Si, Knead Wood for the Lei, and Realize the Benefits of Enlightenment, So as to Teach the World and Cover all Benefits

Cutting wood as a plough and bending wood as a handle are used as a convenience for farming, so as to teach people all over the world to use them. It was invented through the enlightenment of Yigua 100011 sentence.

Ex. 4: The Day is the Market, to the People of the World, to Gather the Goods of the World, to Trade and Return, to Each Get his Own Way, to Cover all Kinds of Drugs

At noon, a market was opened to attract people, gather goods from all over the world, trade and disperse, and get their place. It was invented through the enlightenment of "Gua Gua 100101".

Ex. 5: Router ū Wood is a Boat, and Every Wood is a Boat. The Advantage of the Boat is to Help the Poor, the Distance is to Benefit the World, and the Gap is to be Covered

Cut wood into boats and cut wood into oars. The boat has the advantage of oars to help the traffic, and the distance travel to benefit the people in the world. It was invented through the enlightenment of Huan Gua 010011 sentence.

Ex. 6: We should Pay Close Attention to the Situation, Wait for the Mob, and Cover all the Yu.

Beat bangs along the village alleys to warn people against thieves. It was invented through the enlightenment of Yu Gua 000100 sentences.

Ex. 7: Broken Wood is a Pestle, Digging the Ground is a Mortar, and the Benefit of Mortar and Pestle is the Benefit of All People

Cut wood to make a pestle, dig the ground to make a mortar. The convenience of mortar and pestle will help the people all over the world. It was invented through the enlightenment of Xiaoguo Gua 001100 sentence.

Ex. 8: The String Wood is an Arc, and the Shaft Wood is a Arrow. The Advantage of the Arrow is to Dominate the World and Cover the Whole World

Bend wood as a bow and sharpen wood as an arrow. The advantage of bow and arrow is used to shock the world. It was invented through the enlightenment of the 110101 sentence.

From the above point of view, these inventions such as riding horses and weaving nets for fishing are not uncommon, but in ancient times it was a very great invention.

As a historical document, this set of symbolic languages witnessed the origin of ancient human civilization; At the same time, its mathematical multiplication law, which precedes binary, provides valuable theoretical reserves for modern creative education. This is the meaning and value of symbolic language.

For example, in the Analects of Confucius, there is a saying that "if you add years to me and learn the Book of Changes for 50 years, you can have no major mistakes. It can be inferred from this that since the ancient Chinese had this written language, children can learn it when they are about five years old, which enlightens us to adapt semiotics into an experimental textbook, "Easy to learn for children", which is used for innovation education in primary and secondary schools. In addition, it has been teaching for five semesters among nearly 600 students in grades 1 to 6,

including Kunming Guanyi Primary School, Jiang'an Primary School, Longxiang Primary School, etc., to enhance students' logical thinking, imagination, association And the ability to think independently, so as to learn to create.

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